

Amendment to the Specification

Please add the following three new paragraphs after paragraph [0032]:

[0032.1] One embodiment of the invention comprises an emission electron source that includes a cathode electrode, an emitter layer, an insulator and a gate electrode. The cathode electrode is disposed on a substrate and provides a source of electrons. The emitter layer is disposed over the cathode electrode and is formed from a composition of non-porous embedding material and one or a plurality of non-structures embedded therein. The embedding material has a surface above which portions of the nano-structures protrude to emit electrons. The insulator is disposed over the emitter layer and has one or a plurality of apertures, each exposing at least the ends of the nano-structures in the emitter layer. The gate electrode is disposed over the insulator and has one or a plurality of apertures. Each aperture exposes a single nano-structure and is concentrically self-aligned with the end of the nano-structure. The gate electrode is operative to control the emission of electrons through the apertures from the exposed nano-structures. In the embodiment, the nano-structures comprise a nonconductive core and a conductive shell.

[0032.2] In another embodiment the insulator and the embedding material are composed of the same dielectric material.

[0032.3] Another embodiment of the present invention comprises a display that includes an electron source and an anode plate. The electron source includes a cathode electrode, an emitter layer, an insulator, and a gate electrode. The cathode electrode is disposed on a substrate and provides a source of electrons. The emitter layer is disposed over the cathode electrode and is formed from a composition of non-porous embedding material and one or a plurality of non-structures embedded therein. The embedding material has a surface above which portions of the nano-structures protrude to emit electrons. The insulator is disposed over the emitter layer and has one or a plurality of apertures, each exposing at least the ends of the nano-structures in the emitter layer. The gate electrode is disposed over the insulator and has one or a plurality of apertures. Each aperture exposes a single nano-structure and is concentrically self-aligned with the end of the nano-structure. The gate electrode is operative to control the emission of electrons through the apertures from the exposed nano-structures. The anode plate includes a transparent anode electrode that is disposed over a glass substrate and a phosphor screen disposed over the anode electrode. The anode plate is positioned opposite to the electron source with a vacuum gap disposed therebetween. The electrons are emitted from the nano-structures by apply a voltage between the cathode and the gate electrodes, and are made incident on the phosphor screen to make the screen luminous.